

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1-45 (Canceled)

Claim 46. (Currently amended) An optical lens according Claim 45 54, wherein
the dielectric material is selected from one or more of Al₂O₃, BaTiO₃, Bi₂O₃,
B₂O₃, CeO₂, Cr₂O₃, Ga₂O₃, GeO₂, Fe₂O₃, HfO₂, In₂O₃, Indium-tin oxide, La₂O₃, MgO,
Nd₂O₃, Nb₂O₅, Pr₂O₃, Sb₂O₃, Sc₂O₃, SiO, SiO₂, SnO₂, Ta₂O₅, TiO, TiO₂, Ti₂O₃, Ti₃O₅,
WO₃, Y₂O₃, Yb₂O₃, ZnO, ZrO₂; AlF₃, BaF₂, CaF₂, CdF₂, CeF₃, HfF₄, LaF₃, LiF, MgF₂,
NaF, Na₃AlF₆, Na₅Al₃Fl₁₄, NdF₃, PbF₂, PrF₃, SrF₂, ThF₄, ZrF₄; Si₃N₄, AlN, or
diamond-like carbon, and

the metallic material is selected from the metals, or metal nitrides of one or
more of Silver (Ag), Aluminium (Al), Gold (Au), Barium (Ba), Boron (B), Cadmium
(Cd), Cerium (Ce), Cobalt (Co), Chromium (Cr), Copper (Cu), Iron (Fe), Germanium
(Ge), Hafnium (Hf), Indium (In), Iridium (Ir), Potassium (K), Lanthanum (La),
Magnesium (Mg), Manganese (Mn), Molybdenum (Mo), Nickel (Ni), Neodymium
(Nd), Niobium (Nb), Lead (Pb), Palladium (Pd), Platinum (Pt), Rhenium (Re),
Antimony (Sb), Selenium (Se), Silicon (Si), Tin (Sn), Strontium (Sr), Tantalum (Ta),
Titanium (Ti), Tellurium (Te), Thallium (Tl), Vanadium (V), Tungsten (W), Zinc (Zn) or
Zirconium (Zr).

Claim 47. (Currently Amended) An optical lens according to Claim 45 54, wherein the asymmetric reflectance, light absorbing coating further includes a compatible dielectric top layer or layers.

Claim 48. (Previously presented) An optical lens according to Claim 47, wherein the compatible dielectric layer or layers are of suitable material and thickness to provide a desired colour to the optical lens.

Claims 49-50. (Canceled)

Claim 51. (Currently Amended) An optical lens ~~according to Claim 49 comprising~~
a lens element; and
an asymmetric reflectance, light absorbing coating including at least four alternating
layers of Silica (SiO₂) and Chromium (Cr), Niobium (Nb) or Zirconium (Zr) metal; and
wherein the thickness and/or number of the respective layers are selected to provide
an anti-reflective effect on the eye side of the optical lens and a desired colour on the
other side of the optical lens, wherein the asymmetric reflectance, light absorbing
coating includes alternating layers of silica and niobium metal and an additional
niobium oxide (Nb₂O₅) and/or silica (SiO₂) layer of such thicknesses to provide a
desired colour to the optical lens.

Claims 52-53. (Canceled)

Claim 54 (Currently amended) An optical lens ~~according to Claim 53, comprising~~

a lens element; and
an asymmetric reflectance, light absorbing coating including at least four overlapping
light absorbing and generally transparent layers, and wherein the thickness and/or
number of the respective layers are selected to provide an anti-reflective effect on
the eye side of the optical lens and a desired colour on the other side of the optical
lens; and
wherein the asymmetric reflectance, light absorbing coating includes alternative
layers of a dielectric material and a metallic material which is a metal or metal nitride,
and
wherein a surface of the lens is subjected to a plasma treatment that improves
adhesion thereto.

Claim 55 (Canceled)

Claim 56. (Currently Amended) An optical lens according to Claim 45 54, wherein a surface of the lens element bears a mark thereon, the mark being visible from the front surface of the optical lens, but not being visible from the eyeside thereof.

Claim 57. (Currently Amended) An optical lens according to Claim 56, comprising
a lens element; and
an asymmetric reflectance, light absorbing coating including at least four overlapping
light absorbing and generally transparent layers, and wherein the thickness and/or
number of the respective layers are selected to provide an anti-reflective effect on

the eye side of the optical lens and a desired colour on the other side of the optical lens; and

wherein the asymmetric reflectance, light absorbing coating includes alternative layers of a dielectric material and a metallic material which is a metal or metal nitride, wherein a surface of the lens element bears a mark thereon, the mark being visible from the front surface of the optical lens, but not being visible from the eyeside thereof, and

wherein the asymmetric reflectance, light absorbing coating is deposited on the surface bearing the mark, to render the mark substantially invisible from the eyeside of the lens.

Claims 58-66. (Canceled)

Claim 67 (Currently amended) An optical lens element including comprising

a back lens wafer, said back lens wafer having

a first concave lens surface; and

a second convex lens surface,

~~the first or second~~ surface having deposited thereon

an asymmetric reflectance, light absorbing coating including at least four overlapping light absorbing and generally transparent layers, and wherein the thickness and/or number of the respective layers are selected to provide an anti-reflective effect on the eye side of the optical lens and a desired colour on the other side of the optical lens when formed as a laminate optical lens; and

wherein the asymmetric reflectance, light absorbing coating includes alternating layers of a dielectric material and a metallic material which is a metal or metal nitride.

Claim 68. (Previously presented) An optical lens element according to Claim 67 wherein

the dielectric material is selected from one or more of Al_2O_3 , BaTiO_3 , Bi_2O_3 , B_2O_3 , CeO_2 , Cr_2O_3 , Ga_2O_3 , GeO_2 , Fe_2O_3 , HfO_2 , In_2O_3 , Indium-tin oxide, La_2O_3 , MgO , Nd_2O_3 , Nb_2O_5 , Pr_2O_3 , Sb_2O_3 , Sc_2O_3 , SiO , SiO_2 , SnO_2 , Ta_2O_5 , TiO , TiO_2 , Ti_2O_3 , Ti_3O_5 , WO_3 , Y_2O_3 , Yb_2O_3 , ZnO , ZrO_2 ; AlF_3 , BaF_2 , CaF_2 , CdF_2 , CeF_3 , HfF_4 , LaF_3 , LiF , MgF_2 , NaF , Na_3AlF_6 , $\text{Na}_5\text{Al}_3\text{Fl}_{14}$, NdF_3 , PbF_2 , PrF_3 , SrF_2 , ThF_4 , ZrF_4 ; Si_3N_4 , AlN , or diamond-like carbon; and

the metallic material is selected from the metals, or metal nitrides of one or more of Silver (Ag), Aluminium (Al), Gold (Au), Barium (Ba), Boron (B), Cadmium (Cd), Cerium (Ce), Cobalt (Co), Chromium (Cr), Copper (Cu), Iron (Fe), Germanium (Ge), Hafnium (Hf), Indium (In), Iridium (Ir), Potassium (K), Lanthanum (La), Magnesium (Mg), Manganese (Mn), Molybdenum (Mo), Nickel (Ni), Neodymium (Nd), Niobium (Nb), Lead (Pb), Palladium (Pd), Platinum (Pt), Rhenium (Re), Antimony (Sb), Selenium (Se), Silicon (Si), Tin (Sn), Strontium (Sr), Tantalum (Ta), Titanium (Ti), Tellurium (Te), Thallium (Tl), Vanadium (V), Tungsten (W), Zinc (Zn) or Zirconium (Zr).

Claims 69-72 (Canceled)

Claim 73. (Previously presented) An optical lens element according to Claim 67, wherein a surface of the lens wafer includes a roughened area on the surface to form a mark and the asymmetric reflectance light absorbing coating is deposited on the roughened surface.

Claims 74-76. (Canceled)

Claim 77. (Currently Amended) A laminate optical lens according to Claim 76 81, wherein the mark is visible from the front surface of the laminate lens.

Claim 78. (Currently Amended) A laminate optical lens according to Claim 76 81, wherein the mark is a roughened area on the surface of the contact surface and the asymmetric reflectance light absorbing coating is deposited on the roughened contact surface.

Claim 79. (Canceled)

Claim 80. (Currently Amended) A laminate optical lens according to Claim 79 81 wherein the visible mark is etched into the silica top layer.

Claim 81. (Currently Amended) A laminate optical lens according to Claim 79
comprising
a front lens wafer comprising
a contact surface;

a complementary back lens wafer comprising
a contact surface; and
an asymmetric reflectance, light absorbing coating deposited on a contact surface,
which light absorbing coating includes at least four overlapping light absorbing and
generally transparent layers, and wherein the thickness and/or number of the
respective layers are selected to provide an anti-reflective effect on the eye side of
the optical lens and a desired colour on the other side of the optical lens; and
wherein the asymmetric reflectance, light absorbing coating includes alternating
layers of a dielectric material and a metallic material which is a metal or metal nitride,
wherein a contact surface of the front and/or back lens wafer bears a visible mark
thereon, the mark being rendered substantially invisible from the eye side of the
laminate lens when the lens wafer is bonded to its complementary wafer with a
laminate adhesive having a refractive index approximately equal to that of the optical
lens,
wherein the asymmetric reflectance light absorbing coating includes a silica top
layer, the silica top layer bearing a mark visible prior to lamination of the wafers, and
wherein the visible mark is deposited on the silica top layer, the visible mark being
formed from a laminate adhesive or polymeric material having a refractive index
approximately equal to that of the silica layer.

Claim 82. (Currently Amended) A laminate optical lens according to Claim 74 81,
wherein the laminated optical lens is of the semi-finished type.

Claim 83. (Currently Amended) A method for preparing an optical lens, including

a lens element; and

an asymmetric reflectance, light absorbing coating including at least four overlapping light absorbing and generally transparent layers, and wherein the thickness and/or number of the respective layers are selected to provide an anti-reflective effect on the eye side of the optical lens and a desired colour on the other side of the optical lens; and

wherein the asymmetric reflectance, light absorbing coating includes alternating layers of a dielectric material and a metallic material which is a metal or metal nitride, and wherein a surface of the lens is subjected to a plasma treatment that improves adhesion thereto;

which method includes

providing

a lens element,

a dielectric material or materials; and

a metallic material or materials; and

depositing at least four overlapping layers of dielectric material and metallic material on a surface of the optical lens element, the number and/or thickness of the respective layers being selected to provide an asymmetric reflectance, light absorbing coating.

Claim 84 (Previously Presented) A method according to Claim 83, wherein

the dielectric material is selected from one or more of Al_2O_3 , BaTiO_3 , Bi_2O_3 , B_2O_3 , CeO_2 , Cr_2O_3 , Ga_2O_3 , GeO_2 , Fe_2O_3 , HfO_2 , In_2O_3 , Indium-tin oxide, La_2O_3 , MgO , Nd_2O_3 , Nb_2O_5 , Pr_2O_3 , Sb_2O_3 , Sc_2O_3 , SiO , SiO_2 , SnO_2 , Ta_2O_5 , TiO , TiO_2 , Ti_2O_3 , Ti_3O_5 ,

WO₃, Y₂O₃, Yb₂O₃, ZnO, ZrO₂; AlF₃, BaF₂, CaF₂, CdF₂, CeF₃, HfF₄, LaF₃, LiF, MgF₂, NaF, Na₃AlF₆, Na₅Al₃Fl₁₄, NdF₃, PbF₂, PrF₃, SrF₂, ThF₄, ZrF₄; Si₃N₄, AlN, or diamond-like carbon; and

the metallic material is selected from the metals, or metal nitrides of one or more of Silver (Ag), Aluminium (Al), Gold (Au), Barium (Ba), Boron (B), Cadmium (Cd), Cerium (Ce), Cobalt (Co), Chromium (Cr), Copper (Cu), Iron (Fe), Germanium (Ge), Hafnium (Hf), Indium (In), Iridium (Ir), Potassium (K), Lanthanum (La), Magnesium (Mg), Manganese (Mn), Molybdenum (Mo), Nickel (Ni), Neodymium (Nd), Niobium (Nb), Lead (Pb), Palladium (Pd), Platinum (Pt), Rhenium (Re), Antimony (Sb), Selenium (Se), Silicon (Si), Tin (Sn), Strontium (Sr), Tantalum (Ta), Titanium (Ti), Tellurium (Te), Thallium (Tl), Vanadium (V), Tungsten (W), Zinc (Zn) or Zirconium (Zr).

Claim 85 (Previously Presented) A method according to Claim 83, wherein a surface of the optical lens bears a mark and the asymmetric reflectance light absorbing coating is deposited on the surface bearing the mark, such that the mark is visible from the front surface of the optical lens, but not being visible from the eyeside thereof.

Claim 86 (Previously Presented) A method according to Claim 83, wherein the deposition step is a vacuum deposition step and is conducted in a box coater or sputter coating apparatus.

Claim 87 (Previously Presented) A method according to Claim 83, wherein the lens element includes a front lens wafer including

a contact surface,

a complementary back lens wafer, including

a contact surface

and the overlapping layers of dielectric material and metallic material are deposited on a surface of the front and/or complementary back lens wafer.

Claim 88 (Previously Presented) A method according to Claim 87, wherein the overlapping layers of dielectric material and metallic material are deposited on a contact surface of the front or complementary back lens wafer.

Claim 89 (Previously Presented) A method according to Claim 88, wherein a laminate adhesive is applied to one or both contact surfaces, the front lens wafer and back lens wafer being brought into contact and the laminate so formed being subjected to a curing step to form a laminate optical lens.

Claim 90 (Previously Presented) A method according to Claim 89, wherein the contact surface bearing the light absorbing coating bears a visible mark thereon; such that, when the laminate is bonded, the mark on the contact surface becomes substantially invisible to the wearer.

Claim 91 (Previously Presented) A method according to Claim 89, wherein the top layer of the light absorbing coating is a silica layer bearing a visible mark thereon;

the laminate adhesive having a similar refractive index to the silica layer such that, when the laminate is bonded, the mark on the silica surface becomes substantially invisible to the wearer.

Please add the following new claims:

Claim 92 (New) An optical lens element comprising

a front lens wafer, said front lens wafer having

a first concave lens surface and

a second convex lens surface

the second surface having deposited thereon

an asymmetric reflectance, light absorbing coating including at least four overlapping light absorbing and generally transparent layers, and wherein the thickness and/or number of the respective layers are selected to provide an anti-reflective effect on the eye side of the optical lens and a desired colour on the other side of the optical lens when formed as a laminate optical lens; and

wherein the asymmetric reflectance, light absorbing coating includes alternating layers of dielectric material and a metallic material which is a metal or metal nitride.

Claim 93 (New) An optical lens element according to claim 92, wherein

the dielectric material is selected from one or more of Al₂O₃, BaTiO₃, Bi₂O₃, B₂O₃, CeO₂, Cr₂O₃, Ga₂O₃, GeO₂, Fe₂O₃, HfO₂, In₂O₃, Indium-tin oxide, La₂O₃, MgO, Nd₂O₃, Nb₂O₅, Pr₂O₃, Sb₂O₃, Sc₂O₃, SiO, SiO₂, SnO₂, Ta₂O₅, TiO, TiO₂, Ti₂O₃, Ti₃O₅, WO₃, Y₂O₃, Yb₂O₃, ZnO, ZrO₂; AlF₃, BaF₂, CaF₂, CdF₂, CeF₃, HfF₄, LaF₃, LiF, MgF₂,

NaF, Na₃AlF₆, Na₅Al₃Fl₁₄, NdF₃, PbF₂, PrF₃, SrF₂, ThF₄, ZrF₄; Si₃N₄, AlN, or diamond-like carbon; and

the metallic material is selected from the metals, or metal nitrides of one or more of Silver (Ag), Aluminium (Al), Gold (Au), Barium (Ba), Boron (B), Cadmium (Cd), Cerium (Ce), Cobalt (Co), Chromium (Cr), Copper (Cu), Iron (Fe), Germanium (Ge), Hafnium (Hf), Indium (In), Iridium (Ir), Potassium (K), Lanthanum (La), Magnesium (Mg), Manganese (Mn), Molybdenum (Mo), Nickel (Ni), Neodymium (Nd), Niobium (Nb), Lead (Pb), Palladium (Pd), Platinum (Pt), Rhenium (Re), Antimony (Sb), Selenium (Se), Silicon (Si), Tin (Sn), Strontium (Sr), Tantalum (Ta), Titanium (Ti), Tellurium (Te), Thallium (Tl), Vanadium (V), Tungsten (W), Zinc (Zn) or Zirconium (Zr).

Claim 94. (New) An optical lens element according to Claim 92, wherein a surface of the lens wafer includes a roughened area on the surface to form a mark and the asymmetric reflectance light absorbing coating is deposited on the roughened surface.